

The image features a minimalist design on a white background. A solid black horizontal bar spans the width of the page. Overlapping this bar and extending into the white space are several dashed-line rectangles of various sizes and orientations. The text 'Minimized Spaces' is centered horizontally on the black bar. The overall aesthetic is clean and architectural.

Minimized Spaces

Minimised Spaces

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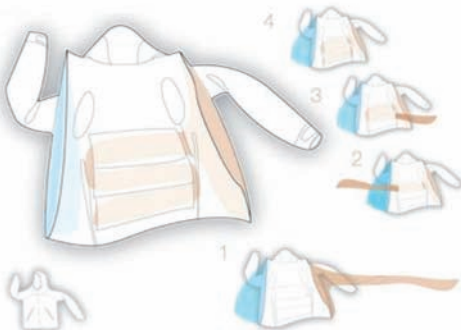


Vessel by Justin Gargas

This piece of wearable architecture challenges the idea of what a home is. The inhabitant is able to take his home with him wherever he goes. When he needs to rest or needs some privacy the jacket can be unfurled to create a small and unobtrusive temporary shelter. When its time to go he can simply fold it back up and go on his way. If it gets too hot to wear a jacket, it folds up further to become a shoulder sling bag.

For those with a desire for a truly nomadic lifestyle, this is a real option.

This housing solution would also be suitable for those who don't want to commute back and forth to work every day. Instead they can just camp out in the city for a night or two.



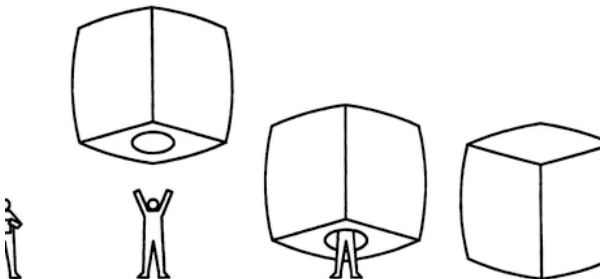


Basic House by Martin Ruiz de Azua

Who needs things anyway? Martin Ruiz de Azua has taken housing and stripped it of all the clutter - down to the bare essentials; shelter and privacy. The opposite of our tendency towards accumulating things, the Basic House encourages the inhabitant towards a more nomadic lifestyle with less 'stuff'.

The operation of the house is incredibly simple and made possible through the use of an experimental prototype in metalised polyester. The occupant simply takes the house out of his pocket and allows it to fill up with air. It can then be placed over the head and that's it - you're inside. The heat from the occupants body and from the sun will keep the house inflated.

Similar to the Vessel, the Basic House can be taken with the occupant wherever they go and carries with it the same advantages.

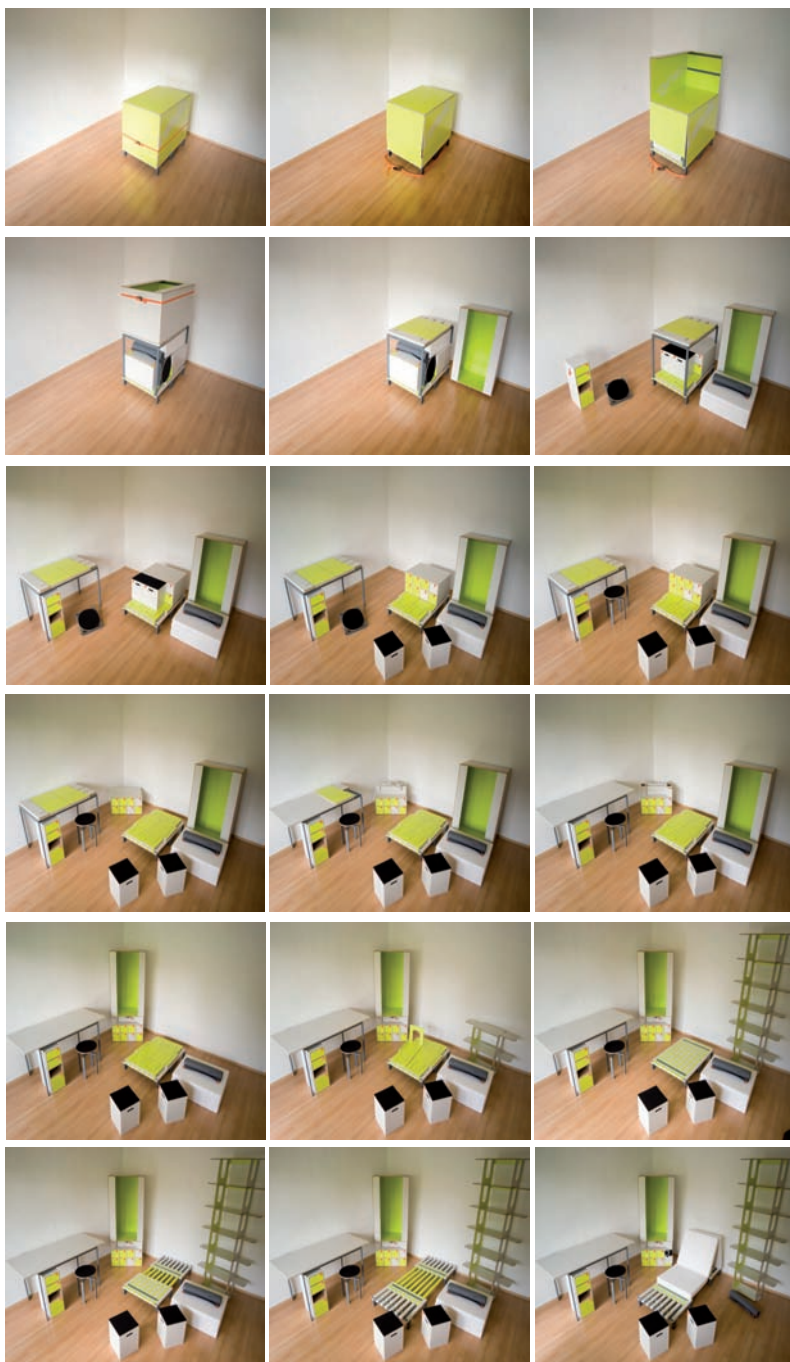




Casulo by Casulo

A society becomes more mobile, the accumulation of goods becomes more of a barrier. When people decide to move, the process of shifting all ones goods from one place to another is a major hassle. We need to consider what we really need and what we don't. The less unnecessary goods we accumulate the freer our lives can become. Casulo addresses these issues of mobility and accumulation with an all in one furniture package that is both easily packable and transportable.

The system includes a workstation, cupboard, bed, chairs, drawers, and shelves, and can all be assembled or dissassembled in about 20 minutes. The whole package folds up into roughly a 1 metre cube and is ready to be moved to a new location.



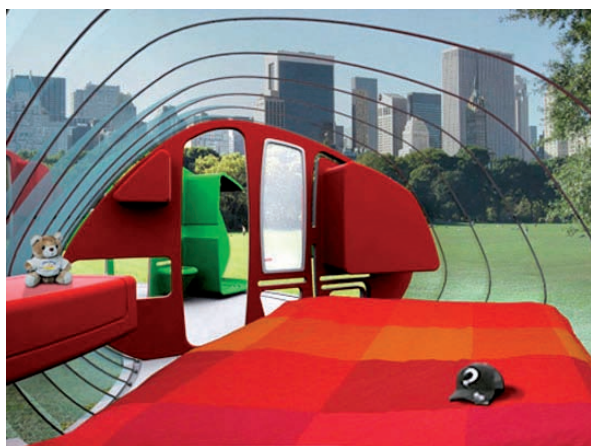


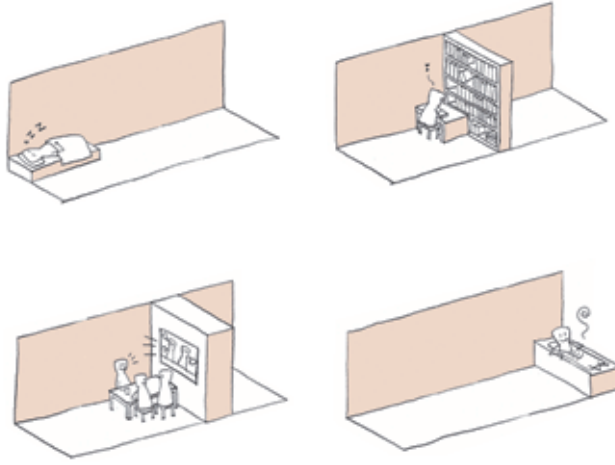
252 Degrees Living Area by Stephanie Bellanger

For those who desire the nomadic lifestyle but still want the creature comforts might consider the 252 Degrees Living Area. Folding up to the size of a small caravan, the 252 expands to create 5 separate living areas with optional roof cover. The occupants can decide wherever they want to live from day to day. The house includes a bathroom, living room, bedroom, kitchen and an office. The walls and floor of the mobile house slides on rails to open like Japanese hand powered fans, while a sliding screen wraps the entire setup in a protective shell.

In Sydney's urban context, this house is problematic because it still relies on a fairly large open space in order to expand. Unlike the previous two options, it cant be operated in the smaller spaces of the city. If there was some kind of stacking tower that many of these could plug into, that might be an option.



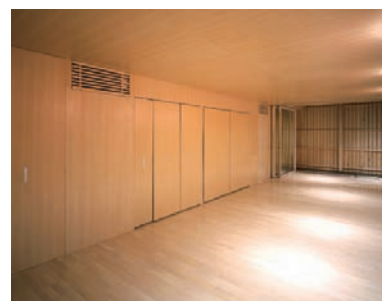




Drawer House by Nendo

In the limited urban space of Tokyo, compact spaces are a necessity. Nendo has designed a small house in which space is maximised through the use of sliding furniture which extends from and retracts into the wall like drawers. The downstairs area of the house becomes kitchen, dining room, bathroom, bedroom, study and living room when needed, and these functions can all be folded away to become blank space if desired.



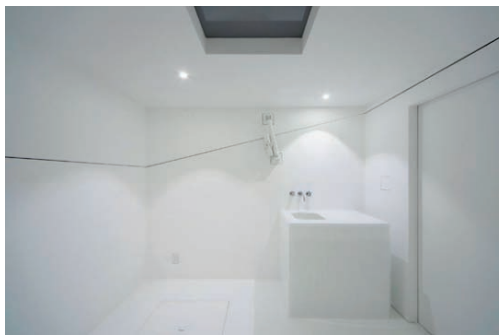




Tiny Portable Paco Unit Home by Schemata Architecture Office

The Tiny Portable Paco Unit Home continues this theme of pop-out functions within a blank, flexible space. Here the space is more extreme. The unit is a 3m cube, that includes all the facilities deemed necessary to living; a shower, a bed, a toilet, and a desk. All of these functions pop out of the raised floor. Light is provided through a skylight, and the lid of the box can be opened up in good weather to provide more light and a link to the outside. The unit is deliberately minimal, with white painted walls no extraneous details. The unit doesn't have a traditional door, merely a horizontal panel that opens and can be crawled through. The unit could be placed anywhere.

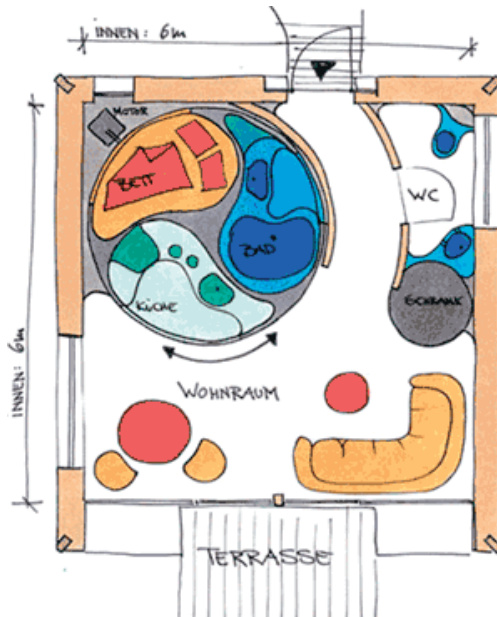






Rotor House by Luigi Colani

The Rotor House by Luigi Colani utilises a rotor to make maximum use of a small space. The house is made up of a small living room 6m x 6m in dimension. Within this space is a cylinder split into 3 compartments; sleeping, kitchen and bathroom. This cylinder is spun around by the rotor, depending on which function is in use at the time. This enables the two other functions that are not in use to be hidden away in a corner, out of sight and out of use.



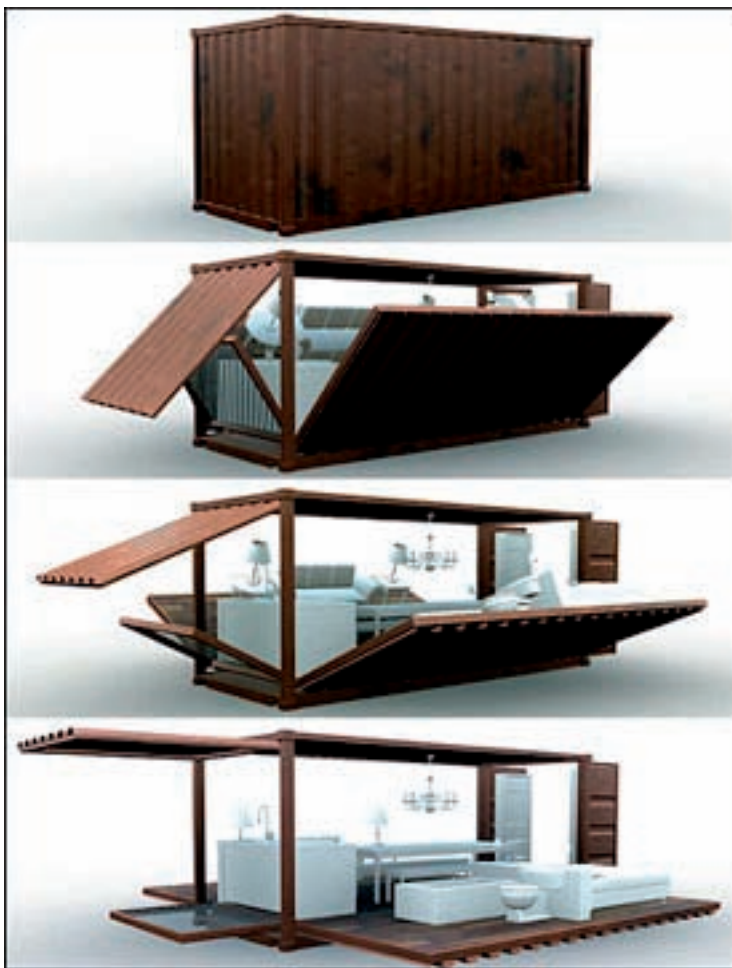




Push Button House by Adam Kalkin

The Push Button House is a standard shipping container in both its materials and dimensions. But at the push of a button, the container unfolds to become a house. The interior furnishings are luxurious in contrast to the crude outer shell. All the basic facilities of a house are included, but with the notable exception of walls, which become added floor space when the house is operating. This would present a problem in terms of privacy, so in order for it to be appropriate for an urban setting, some alterations are needed. Because it makes use of a shipping container, it is perfect for stacking. A workable iteration of this concept for Sydney could be a tower of them which can be plugged and unplugged from the tower and its services. Each unit could fold up to simple sleeping quarters at night or when in use, and then in the day could open out to make use of the full layout.







SpaceBox by Mart De Jong

The spacebox is a modular compact unit that can be stacked to a height of 3 stories without the need for any additional supporting structure. It includes a kitchen, shower, toilet and a living / sleeping area. The size can be 18m² or 22m². At one end is a large glazed wall to let in light and at the other is the entrance. In order to create a block of these units, all that is needed is walkways and stairs. Aircraft industry composites are used to create the lightweight, yet strong outer shell, which also maximises thermal insulation and acoustic performance.

This is a great option for both long term and temporary housing. As temporary housing it excels because of the ease of assembly (all you need is a crane and some scaffolding), and its ability to house a large amount of people comfortably. Its a shame that it can only rise to three stories, without the need for further structural support, but even with this additional need it could still be a useful option for Sydney.

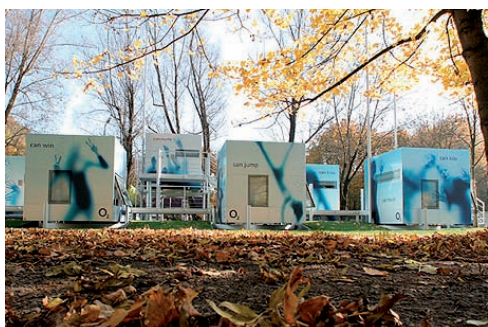
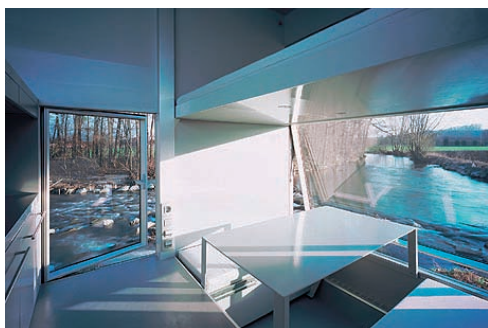


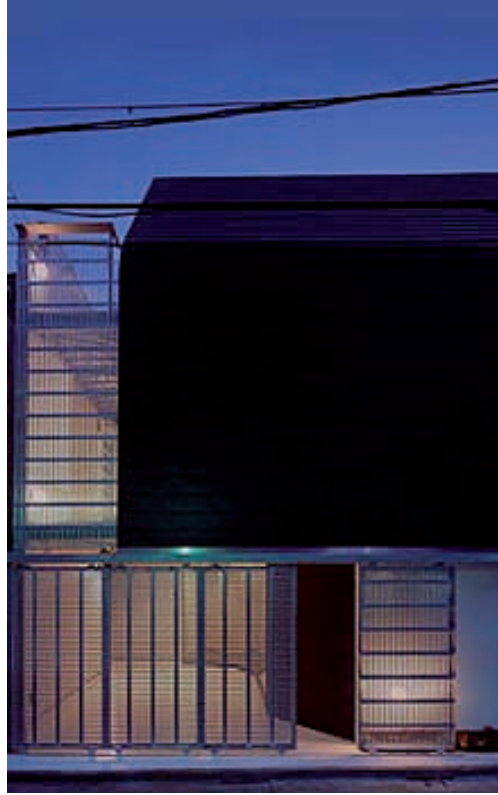


Micro Compact Home by Richard Hordern

This 2.6m cube is a highly compact unit which, like the paco home unit, contains all the basic facilities necessary. It includes kitchen, dining, bed, shower, and study functions in a tiny footprint. It also includes a small outside balcony. The unit may be situated on a variety of site and even stacked in a tower to create a vertical village of micro - compact homes. Originally designed as experimental student accommodation, it has the potential to be used effectively in Sydney's urban situation to provide housing for individuals. The small footprint and ability to stack means that a high density of people could be accommodated in a relatively small area.







House in Moto-Azabu by Mutsue Hayakusa

The three storey dwelling is built in a unique plot of land, triangular in shape, with a total land area of $37,45\text{m}^2$. The architect has maximised the space, creating a total floor area of 112.35m^2 . It includes a 2 car garage area, 2 bedrooms, 2 bathrooms, kitchen, dining room and balconies. The use of building material seems to be carefully selected, such as, steel grill, which is applied on the front facade of the house to improve the house security while at the same time allows light to penetrate inside the space during the day. The architect has created an admirable solution to the awkward and unique site requirements.



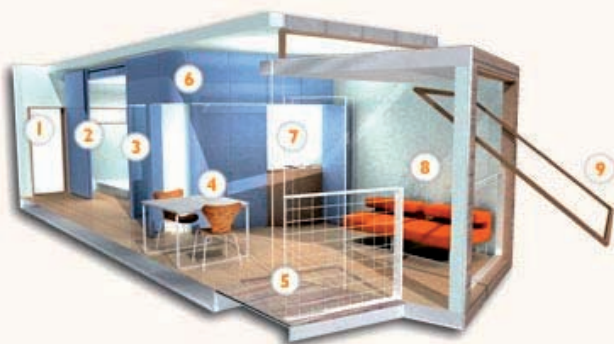


Micro flat by Piercy Conner

The Micro flat is designed by Piercy Conner to fulfil the entire normal criteria of a conventional flat while minimising the use of space. The unit area is around two thirds of the size of a conventional one bedroom flat in the city. The compact dwelling promotes a more functional space and together with the pre-fabricated components offers a way to save on the construction costs. The microflats propose an affordable answer for people who have desire to live the city lifestyle, and are willing to trade a bit of space for a reduced cost, without losing any of the conveniences of a conventional flat.



- 1 entrance
- 2 sliding panels to double bedroom
- 3 utility pod with choice of finish
- 4 dining and work area
- 5 outside balcony
- 6 storage
- 7 closeable kitchen area
- 8 lounge area
- 9 large fully glazed opening window

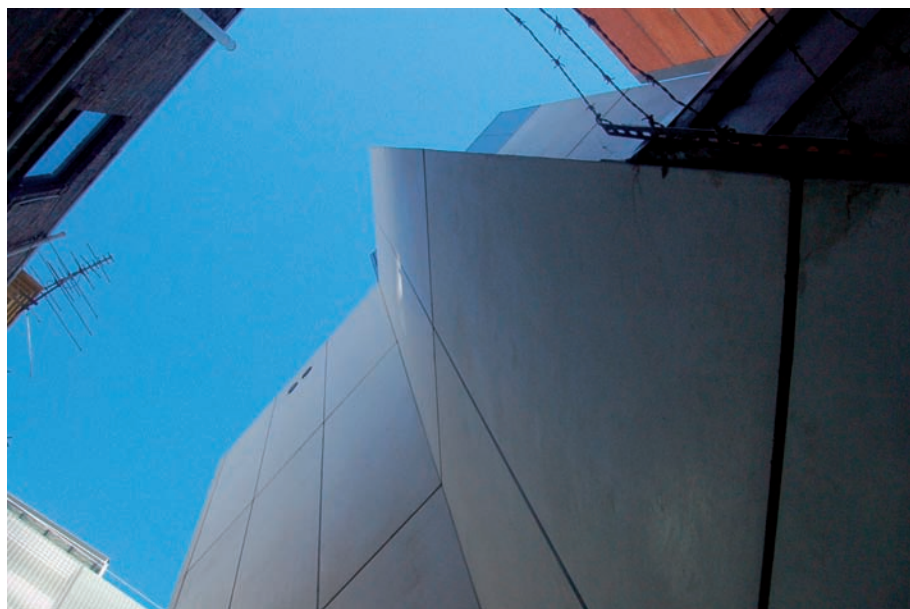




Alvaro Residence by Domenic Alvaro

Surry Hill, Sydney, NSW

With a building footprint of just two car spaces the Alvaro residence in Surry Hills is a good example of urban living on a small footprint. The building rises 5 stories high to a semi covered roof platform, which makes up the top floor. An interior staircase runs through all the floors, allowing light into all levels. The cutaway floor plates around the staircase also vent warm air up through to the top of the building. There are no rooms, corridors or doors. All the spaces are flexible, allowing for multiple uses through the operation of moveable partitions. This allows the relatively tiny building to house three bedrooms, two bathrooms, a



Conclusion

As Sydney grows in population land is becoming more scarce. The Metro Strategy (2005) further anticipates that the average household size will fall from 2.65 to 2.36 people per dwelling, due partly to the ageing of the population, which tends to result in more single and two person households and more single and young people living alone.

These changes in household type and therefore occupancy rates mean that total demand for housing will be greater than population growth and a wider mix of housing types will be required. This will inevitably lead to a greater demand for smaller housing with good access to shops, transport and services such as health. The Metro Strategy (2005) has calculated that with a population growing to 5.3 million and average household sizes anticipated to fall from 2.65 to 2.36 persons per private dwelling by 2031, a total of 2.2 million homes will be required in Sydney.

To address these issues we need to consider new housing solutions. The traditional idea of quarter acre blocks expanding out from the city centre needs to be challenged. It is both unsustainable and increasingly unsuitable for our shifting household demographics. A higher density of living is inevitable, and along with it more compact housing options.

Compact housing brings with it the challenge of designing smaller living spaces yet maintaining comfortable proportions and good quality of life. The physical and mental health issues associated with living in tiny spaces need to be addressed.

New housing designs are taking advantage of new innovations and technologies to create quality new compact houses. These houses often use operable parts to create flexible spaces which can have multiple uses at different times. At the push of a button or the shifting of a partition, a space can be transformed from bedroom to office, or kitchen to bathroom. Here, the savings in site costs due to the smaller spaces, can be transferred to componentry, that allows the space to operate more efficiently.

Other minimised spaces are being designed which challenge the idea of home as restricted to a set location. These transportable homes can be taken with the occupant wherever they go.

These examples of minimised spaces give us a glimpse into what Sydney's urban housing future could be. If the principles examined here are put into practice in Sydney, along with appropriate infrastructure and public facilities we could begin to address Sydney's looming housing crisis.